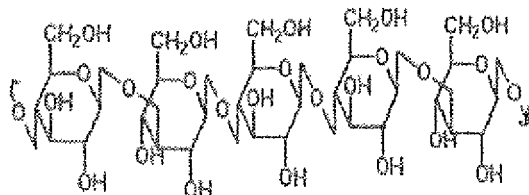


## Glucagel™

### *Glucagel™ is:*

- a rich extract with 75% mixed linkage cereal beta-glucans from waxy, hullless barley.
- a gelling hydrocolloid
- highly concentrated source of bioactive beta glucans which can help to lower blood serum cholesterol levels and modulate post prandial blood glucose levels.
- a rich source of anti-oxidants
- a fine light, bland, flexible material that can be used in a wide range of food applications.
- a rich natural, soluble, non-digestible dietary fiber that promotes digestive health.
- a prebiotic non starch polysaccharide that readily is fermented by healthy bacteria in the colon and contributes to immune system health.
- an ingredient that responds well to most typical food processing, including both baking and freezing.

### BBG - Mixed Linkage Barley Beta Glucan



### What Are Beta Glucans?

Beta glucan is a non-starch polysaccharide, soluble fiber that is naturally present in barley, oat bran and other grains. It is found in greatest concentration in the endosperm (inner layer) of barley, particularly in waxy hullless barley varieties. In general, these soluble fibers form a viscous solution when dissolved in water. Beta glucans are very strong hydrocolloids, taking up approximately twenty times their volume in water.

Glucagel™ is extracted from barley using a benign patented process that retains the natural qualities of the material.

Barley beta-glucans that make up the bioactive fraction of Glucagel™ have been widely studied in clinical trials for their beneficial effects on human nutrition and health. Many studies indicate that adding beta glucan (at levels of 3g or more per day) to the diet can help to reduce LDL cholesterol and triglyceride levels that are risk factors for cardiovascular disease.

There is also evidence from a number of clinical studies indicating that barley beta-glucan is effective in reducing post-prandial blood glucose elevations and modulating blood sugar cycles, a key for diabetics and others with glucose metabolism disorders.

The beta-glucan fraction of Glucagel™ is not digested in the human digestive system. It is, however, fermented by health bacteria in the colon, which can contribute to immune health.

## Product Characteristics for Glucagel™ (BB-3)

| <b>Glucagel'</b>           | <b>Grade</b>        | <b>Food</b> |
|----------------------------|---------------------|-------------|
|                            |                     |             |
| <b>Specifications</b>      | <b>Units</b>        |             |
| <b>Physical</b>            |                     |             |
| Colour                     | L, a,b.             | light tan   |
| Molecular weight           | kD                  | 50-60       |
| Particle size              | % retained on 125mm | <3          |
| <b>Chemical</b>            |                     |             |
| b-glucan                   | %dsb                | 75          |
| Moisture                   | %                   | 3-10        |
| Protein                    | %dsb                | 2-10        |
| Arsenic                    | ppm dsb             | <1          |
| Lead                       | ppm dsb             | <2          |
| <b>Microbiological</b>     |                     |             |
| Total Plate Count          | Org/gm              | < 50,000    |
| Yeast & Mould              | Org/gm              | <1000       |
| Coliforms                  | Org/gm              | <10         |
| E. Coli                    | Org/10gm            | ND.         |
| Salmonella                 | Org/25gm            | ND.         |
| <b>Functionality</b>       |                     |             |
| <b>Gel Strength (3%)</b>   |                     |             |
| Instron rupture test       | g                   | 30 - 100    |
| Compression before rupture | mm                  | 3.5 – 5.0   |